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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/127,316 07/31/98 CHING

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000326 IMS2/0501
CHEVRON CORPORATION LAW DEPARTMENT
PATENT DIVISION
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EXAMINER

NOLAN, S

ART UNIT

PAPER NUMBER

1772

DATE MAILED:

05/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

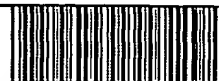
Office Action Summary

Application No.
09/127,316

Applicant(s)
CHING et al

Examiner
Sandra Nolan

Art Unit
1772



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb. 20, 2001
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-8, 11-13, 15-24, 26-31, 33-90, and 92-98 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-8, 11-13, 15-24, 26-31, 33-90, and 92-98 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

Art Unit: 1772

DETAILED ACTION

Claims

1. Pursuant to entry of the amendment dated February 20, 2001 (Paper No. 14), claims 2, 9, and 25 have been canceled. Claims 1, 4-8, 11-13, 15-24, 26-31, 33-90, and 92-98 are pending.

Request for Renumbering of Claims

2. In view of the large number of claims and the multiple amendments thereto, it is asked that Applicants submit a new set of renumbered claims, beginning with claim number 99.

Information Disclosure Statement

3. The information disclosure statement submitted on February 6, 2001 (Paper No. 13) has been considered by the examiner. A copy of the initialed form PTO 1449 is enclosed.

Rejections Withdrawn

4. The 35 U.S.C. 102 rejection of claims 1, 2, 11, 12, 13, 23 and 24 as anticipated by Tellier et al (US 3,497,571) is withdrawn in view of Applicants' amendments in Paper No. 14.
5. The 35 U.S.C. 103 rejection of claims 1, 2, 4-13, 15-31, 33-90, and 92-98 as unpatentable over Ching et al (US 5,627,239) is withdrawn in response to Applicants' amendments in Paper No. 14.

Claim Rejections - 35 U.S.C. § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1772

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

7. Claims 1, 4, 10, and 61-63 are rejected under 35 U.S.C. 102(b) and (e) as being anticipated by Nordstrom (US 3,536,687).

Nordstrom shows ethylene-backbone copolymers having pendant groups containing Applicants' linking groups and (substituted) cyclohexenyl moieties (col. 1, lines 36-40 and col. 2, lines 45-59 and lines 71-72). The copolymers may contain methyl acrylate and styrene residues (col. 3, lines 12 and 21). They are used to make layers (see "coating" in the abstract and "film" at col. 4, lines 45). The copolymers are advantageous because they crosslink in air at ambient temperatures (col. 1, lines 49-52).

The properties recited in claims 62 and 63 would be inherent in patentee's copolymers, given Nordstrom's use of the same monomers to make his copolymers.

Claim Rejections - 35 U.S.C. § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1772

9. Claims 5-8, 11-13, 15-24, 26-31, 33-52, 59-60, 64-90 and 92-98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ching et al (US 5,627,239) in view of Nordstrom.

Ching et al is described on pages 3 and 4 of the Office Action mailed on November 30, 2000 (Paper No. 11). Note that the patent also describes the use of their oxygen scavengers in packaging to prevent food spoilage (col. 2, lines 58+), polymer blends (col. 26, line 37) and multilayer systems (col. 26, lines 57+). Ching et al do not show the structure of the pendant cyclohexenyl-containing groups that Applicants claim.

Nordstrom is discussed above.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the reactants/copolymers of Nordstrom in the polymerization techniques, blends and multilayer constructs of Ching et al if one wanted to assure that the cyclohexenyl-containing polymer component would cure readily at ambient temperatures.

The suggestion to employ the reactants/copolymers of Nordstrom in the processes and systems of Ching et al is based upon the teaching of Nordstrom that his copolymers crosslink at ambient temperatures (see col. 1, lines 49-52 of Nordstrom). It is deemed desirable to make products such as films and/or packaging using materials that crosslink at ambient temperatures in order to lower the cost of making the products.

The properties recited in claims 23 and 24 would expected based on the teaching by Ching et al that polymers made using their techniques prevent food spoilage (col. 2, lines 64+).

Art Unit: 1772

The intended uses recited in claim 52 do not render the claimed articles patentable. It has been held that a recitation with respect to the manner in which a claimed invention is intended to be employed does not differentiate the claimed invention from a prior art satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

The shapes recited in claims 59 and 60 do not render the articles patentable. It is well settled that a particular shape of a prior invention carries no patentable weight unless the applicant can demonstrate that the new shape provides significant unforeseen improvements to the invention. See *In re Seid*, 161 F.2d 229, 73 USPQ 431 (CCPA 1947) (Claim was directed to an advertising display device comprising a bottle and a hollow member in the shape of a human figure from the waist up which was adapted to fit over and cover the neck of the bottle, wherein the hollow member and the bottle together give the impression of a human body. Appellant argued that certain limitations in the upper part of the body, including the arrangement of the arms, were not taught by the prior art. The court found that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art.). Also, see *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.). In the instant case, the application does not indicate any new,

Art Unit: 1772

significant attributes of the invention due to its shape which would have been unforeseen to one of ordinary skill in the art.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to make article of any desired shape in order to tailor them to the environments in which they will be used. One skilled in the art would have been motivated to do so in order to manipulate the shape for any specific intended use.

10. Claims 28-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsumoto et al (US 6,139,770) in view of Ching et al and Nordstrom.

Katsumoto et al teach photoinitiators (col. 3, lines 14+) and transition metal catalysts (col. 7, lines 55+) in combination with oxygen scavenging polymers (col. 6, lines 48+) that are useful in polymer blends (col. 8, lines 46+) and multilayer constructs (abstract). The patent does not disclose the particular reactants/copolymers and reaction conditions claimed.

Ching et al and Nordstrom are discussed above. They show the reactants/copolymers and reaction conditions claimed.

It would have been obvious to one having ordinary skill in the art at the time that the invention was made to employ the copolymers suggested by the combination of Ching et al and Nordstrom, above, along with photoinitiators and transition metal catalysts, in the polymer blends, and multilayer constructs of Katsumoto et al.

The motivation to employ the copolymers suggested by Ching et al and Nordstrom in the combinations of Katsumoto et al is found at col. 6, lines 48+ of Katsumoto et al, where patentees

Art Unit: 1772

state that the oxygen scavenging materials useful in their invention may be any material that will scavenge oxygen, so long as it does not compete strongly for UV absorption in the region where the photoinitiator absorbs light. Since there is no suggestion in any of the cited patents that the copolymers of the Ching et al/Nordstrom combination would compete for UV absorption, their use, especially in view of their low temperature crosslinkability, would have been obvious. It is deemed desirable to save money by using easily crosslinkable copolymers in the systems of Katsumoto et al.

11. Claims 53-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ching (US-5,744,246) in view of Ching et al and Nordstrom.

Ching shows, in Figure 1, multilayer composites having oxygen scavenging polymer layers with functional layers. The composites claimed give greater flexibility in the scavenging of oxygen in packaging environments (abstract). The patent does not teach the reactants or the reaction processes claimed.

Ching et al and Nordstrom are discussed above.

It would have been obvious to one of ordinary skill in the art at the time that the invention was made to employ the copolymers suggested by the combination of Ching et al and Nordstrom in the multilayer composites of Ching.

The motivation to employ the copolymers suggested by Ching et al and Nordstrom in the multilayer systems of Ching is found in Ching's abstract, where greater flexibility in using oxygen scavenging polymers is taught. It is deemed desirable to improve the flexibility of the use of the

Art Unit: 1772

oxygen scavenging copolymers suggested by Ching et al in combination with Nordstrom by employing them in multilayer composites, such as those of Ching. Such flexibility of use will make it possible to produce a greater variety of types of packaging systems based upon the oxygen scavenging copolymers, thereby facilitating the customization of oxygen scavenging packaging.

Response to Arguments

12. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Final Rejection

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1772


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra M. Nolan, whose telephone number is (703) 308-9545. The examiner can normally be reached on Monday through Thursday from 7:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703) 308-4251. The fax phone number for the art unit is (703) 305-5408. The telephone number for the receptionist is (703) 308-0661.



SMN/smn
April 28, 2001
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HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/30/01